

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

LED WAFER SOLUTIONS LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA,
INC.,

Defendants

and

SEOUL SEMICONDUCTOR CO., LTD.,

Intervenor-Defendant.

CASE NO. 6:21-cv-00292

**SEOUL SEMICONDUCTOR CO., LTD.'S
ANSWER AND AFFIRMATIVE DEFENSES**

JURY TRIAL DEMANDED

**INTERVENOR-DEFENDANT SEOUL SEMICONDUCTOR CO., LTD.'S
ANSWER TO LED WAFER SOLUTIONS LLC'S COMPLAINT**

Intervenor-Defendant Seoul Semiconductor Co., Ltd. ("SSC") answers and responds to Plaintiff LED Wafer Solutions LLC's ("LED Wafer") Complaint against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively "Samsung") as follows, with the exception of Plaintiff's allegations of willful infringement and indirect infringement that have been dismissed by the Court. (Dkt. 18, Order on Motion to Dismiss). To the extent not expressly admitted below, SSC denies each and every allegation in the Complaint.

NATURE OF THE ACTION

1. SSC admits that this action purports to be an action for patent infringement that seeks injunctive relief and damages. SSC denies the remaining allegations in Paragraph 1 of the Complaint, including denying that SSC has infringed or is infringing any of the Asserted Patents and denying that Plaintiff is entitled to any injunctive relief or damages.

2. To the extent that Paragraph 2 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 2 refers to non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC's products, and on that basis, denies.

3. SSC admits that Plaintiff is seeking past and future damages and prejudgment and post-judgment interest for alleged infringement. SSC denies the remaining allegations in Paragraph 3 of the Complaint, including denying that SSC has infringed or is infringing U.S. Patent No. 8,941,137; U.S. Patent No. 8,952,405; U.S. Patent No. 9,502,612; or U.S. Patent No. 9,786,822 (collectively "Asserted Patents") and denying that Plaintiff is entitled to any injunctive relief or damages.

PARTIES

4. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 4 of the Complaint, and on that basis, denies.

5. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 5 of the Complaint, and on that basis, denies.

6. Whether Samsung Electronics Co., Ltd. can be served is a legal conclusion to which no response is required. For all factual allegations in Paragraph 6 of the Complaint, SSC lacks knowledge or information sufficient to admit or deny the allegations and on that basis, denies.

7. Whether Samsung Electronics America, Inc. can be served is a legal conclusion to which no response is required. For all factual allegations in Paragraph 6 of the Complaint, SSC lacks knowledge or information sufficient to admit or deny the allegations and on that basis, denies.

8. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 8 of the Complaint and on that basis, denies.

9. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 9 of the Complaint and on that basis, denies.

JURISDICTION AND VENUE

10. SSC admits that this action purports to be an action for patent infringement under the patent laws of the United States, including 35 U.S.C. §§ 271, 281, and 283-285. SSC denies that it has infringed or is infringing any of the Asserted Patents. Except as so admitted, denied.

11. Paragraph 11 consists of legal conclusions to which no response is required. To the extent that a response is required, denied.

12. The allegations regarding personal jurisdiction in Paragraph 12 consist of legal conclusions to which no response is required. To the extent that a response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as to Samsung Electronics Co., Ltd. Except as so admitted, denied.

13. The allegations regarding personal jurisdiction in Paragraph 13 consist of legal conclusions to which no response is required. To the extent that a response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as to Samsung Electronics America, Inc. Except as so admitted, denied.

14. The allegations regarding venue in Paragraph 14 consist of legal conclusions to which no response is required. To the extent that a response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as to Samsung. Except as so admitted, denied.

COUNTS OF PATENT INFRINGEMENT

15. To the extent that Paragraph 15 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 15 refers to non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC's products, and on that basis, denies.

COUNT ONE

INFRINGEMENT OF U.S. PATENT 8,941,137

16. SSC incorporates by reference its responses to all preceding paragraphs as if set forth fully herein.

17. SSC admits that U.S. Patent No. 8,941,137 (“the ’137 Patent”) is titled “LIGHT EMITTING DIODE PACKAGE AND METHOD OF MANUFACTURE,” and that the ’137 Patent indicates that it was filed on March 6, 2012, purports to claim the benefit and priority of a provisional application filed on March 6, 2011, and issued on January 27, 2015. SSC denies that the claims of the ’137 patent are entitled to an earlier effective filing date than the filing date of the application that issued as the ’137 patent.

18. SSC lacks knowledge or information sufficient to admit or deny the allegations contained in Paragraph 18 of the Complaint, and on that basis denies.

Technical Description

19. The allegations in Paragraph 19 concerning the scope of the claims in the ’137 Patent are conclusions of law, to which no response is required. SSC admits that Exhibit A at the Abstract states “[a] light emitting diode (LED) device and packaging for same is disclosed. In some aspects, the LED is manufactured using a vertical configuration including a plurality of layers.” SSC admits that Exhibit A at 1:27-32 states “compare favorably to other sources of light and are especially useful in certain applications and markets. For example, LED lighting generally provides advantages with respect to energy efficiency, compact, rugged, long-lasting design and form factor, as well as other features.” SSC admits that Exhibit A at 1:40-62 states “[t]hat said, conventional LED devices can be relatively costly to manufacture by some metrics when compared to other light sources. One reason for this is the exacting packaging requirements for manufacturing LEDs. LED packaging calls for proper clean conditions, micro-fabrication facilities similar to other semiconductor manufacturing operations, sealing requirements, optical requirements, the use of phosphor in LED applications, as well as packaging that is designed to handle the conduction of heat generated in the devices. Conventional LED packaging includes silicon (Si) or Ceramic based carrier substrates. The LEDs can be mounted on the carrier, or alternatively the many LEDs can be mounted on a wafer of the carrier and the LEDs are singulated at the end of the packaging process. The wafer based approach is termed wafer level assembly packaging (WLP). However, these conventional techniques require the use of a carrier substrate

to support the LED, which can double the cost of making and packaging the LED device. In addition, the carrier substrate greatly increases the thermal resistivity of the device and adversely affects its heat removal characteristics. Accordingly, there is a need for LED devices that do not suffer from some or all of the above problems.” Except as so admitted, denied.

20. SSC admits that Exhibit A at 2:2- 6 states “[c]ertain layers act to promote mechanical, electrical, thermal, or optical characteristics of the device. The device avoids design problems, including manufacturing complexities, costs and heat dissipation problems found in conventional LED devices.” SSC admits that Exhibit A at 2:12-22 states “a semiconductor LED including doped and intrinsic regions thereof; a conducting carrier layer disposed proximal to a first surface of said semiconductor LED and separated therefrom by a metallic interface; an optically permissive layer proximal to a second surface of said semiconductor LED, said first and second surfaces of said semiconductor LED being on opposing faces thereof; an optically definable material proximal to or within said optically permissive layer that affects an optical characteristic of emitted light passing therethrough; and an optically permissive cover substrate covering at least a portion of the above components.” SSC denies that the ’137 patent provides a technical solution to prior art problems by providing a LED having a plurality of layers. Except as so admitted, denied.

Direct Infringement

21. To the extent that Paragraph 21 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 21 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

22. Paragraph 22 consists of legal conclusions to which no response is required, but to the extent a response is required, denied.

23. To the extent that Paragraph 23 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 23 refers to non-SSC’s products or Samsung, SSC lacks knowledge

or information sufficient to admit or deny the allegations except as they concern SSC or SSC's products, and on that basis, denies.

24. To the extent that Paragraph 24 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 24 refers to non-SSC's products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC's products, and on that basis, denies.

25. To the extent that Paragraph 25 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 25 refers to non-SSC's products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC's products, and on that basis, denies.

26. To the extent that the allegations in Paragraph 26 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 26 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

27. To the extent that the allegations in Paragraph 27 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 27 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

28. To the extent that the allegations in Paragraph 28 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 28 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

29. To the extent that the allegations in Paragraph 29 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 29 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

30. To the extent that the allegations in Paragraph 30 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 30 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

31. To the extent that the allegations in Paragraph 31 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response

is required, denied. To the extent that the allegations in Paragraph 31 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

32. To the extent that the allegations in Paragraph 32 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 32 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

33. To the extent that the allegations in Paragraph 32 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 32 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

34. To the extent that the allegations in Paragraph 34 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 34 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required,

SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

35. To the extent that the allegations in Paragraph 35 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 35 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

36. To the extent that the allegations in Paragraph 36 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 36 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

37. To the extent that the allegations in Paragraph 37 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 37 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

Willful Infringement

38. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

39. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

40. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

41. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

42. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

43. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

44. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

45. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 45 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

46. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 46 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

Indirect, Induced, and Contributory Infringement

47. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 47 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

48. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 48 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

49. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 49 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

50. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 50 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

51. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 51 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

52. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 52 of the Complaint as to SSC and SSC's products and denies that Plaintiff is entitled to any relief as to SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

COUNT TWO

INFRINGEMENT OF U.S. PATENT 8,952,405

53. SSC incorporates by reference its responses to all preceding paragraphs as if set forth fully herein.

54. SSC admits that U.S. Patent No. 8,952,405 ("the '405 Patent") is titled "LIGHT EMITTING DIODE PACKAGE AND METHOD OF MANUFACTURE," and that the '405 Patent indicates that it was filed on March 6, 2012, purports to claim priority to a provisional application filed on March 6, 2011, and issued on February 10, 2015. SSC denies that the claims of the '405 patent are entitled to an earlier effective filing date than the filing date of the application that issued as the '405 patent.

55. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 55 of the Complaint, and on that basis, denies.

Technical Description

56. The allegations in Paragraph 56 concerning the scope of the claims in the '405 Patent are conclusions of law, to which no response is required. SSC admits that Exhibit B at the Abstract states "[a] light emitting diode (LED) device and packaging for same is disclosed. In some aspects, the LED is manufactured using a vertical configuration including a plurality of layers." SSC admits that Exhibit B at 1:32-37 states "[l]ight emitting diodes (LEDs) compare favorably to other sources of light and are especially useful in certain applications and markets. For example, LED lighting generally provides advantages with respect to energy efficiency, compact and rugged and long-lasting design and form factor, and other features." SSC admits that

Exhibit B at 1:45-48 states “conventional LED devices can be relatively costly to manufacture by some metrics when compared to other light sources. One reason for this is the exacting packaging requirements for manufacturing LEDs.” SSC admits that Exhibit B at 1:61-67 states “conventional techniques require the use of a carrier substrate to support the LED, which can double the cost of making and packaging the LED device. In addition, the carrier substrate greatly increases the thermal resistivity of the device and adversely affects its heat removal characteristics. Accordingly, there is a need for LED devices that do not suffer from some or all of the above problems.” Except as so admitted, denied.

57. SSC admits that Exhibit B at 2:6-10 states “[c]ertain layers act to promote mechanical, electrical, thermal, or optical characteristics of the device. The device avoids design problems, including manufacturing complexities, costs and heat dissipation problems found in conventional LED devices.” SSC admits that Exhibit B at 2:16-27 states “a semiconductor LED including doped and intrinsic regions thereof; a first surface of said semiconductor LED being metallized with an electrically conducting metallization layer over at least a portion of said first surface; an optically permissive layer proximal to a second surface of said semiconductor LED, said first and second surfaces of said semiconductor LED being on opposing faces thereof; an optically definable material proximal to or within said optically permissive layer that affects an optical characteristic of emitted light passing there through; and an optically permissive cover substrate covering at least a portion of the above components.” SSC denies that the ’137 patent provides a technical solution to prior art problems by providing a LED having a plurality of layers. Except as so admitted, denied.

Direct Infringement

58. To the extent that Paragraph 58 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 58 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

59. Paragraph 22 consists of legal conclusions to which no response is required, but to the extent a response is required, denied.

60. To the extent that Paragraph 60 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 60 refers to non-SSC's products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC's products, and on that basis, denies.

61. To the extent that Paragraph 61 purports to apply to SSC or SSC's products, denied. To the extent that Paragraph 61 refers to non-SSC's products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC's products, and on that basis, denies.

62. To the extent that Paragraph 62 purports to apply to SSC or SSC's products, denied. To the extent that paragraph 62 encompasses non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC products, and on that basis, denies.

63. To the extent that the allegations in Paragraph 63 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 63 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

64. To the extent that the allegations in Paragraph 64 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 64 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly,

contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

65. To the extent that the allegations in Paragraph 65 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 65 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

66. To the extent that the allegations in Paragraph 66 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 66 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

67. To the extent that the allegations in Paragraph 67 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 67 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

68. To the extent that the allegations in Paragraph 68 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 68 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

69. To the extent that the allegations in Paragraph 69 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 69 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

70. To the extent that the allegations in Paragraph 70 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 32 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

71. To the extent that the allegations in Paragraph 71 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response

is required, denied. To the extent that the allegations in Paragraph 71 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

72. To the extent that the allegations in Paragraph 72 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 72 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

73. To the extent that the allegations in Paragraph 73 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 73 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

74. To the extent that the allegations in Paragraph 74 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 74 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required,

SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

75. To the extent that the allegations in Paragraph 75 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 75 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

76. To the extent that the allegations in Paragraph 76 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 76 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

Willful Infringement

77. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

78. SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

79. SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

80. SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

81. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

82. SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

83. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

84. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 84 of the Complaint as to SSC and SSC's products. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

85. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 85 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

Indirect, Induced, and Contributory Infringement

86. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 86 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

87. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 87 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

88. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 88 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

89. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 89 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

90. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 90 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

91. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 91 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

COUNT THREE

INFRINGEMENT OF U.S. PATENT 9,502,612

92. SSC incorporates by reference its responses to all preceding paragraphs as if set forth fully herein.

93. SSC admits that U.S. Patent No. 9,502,612 ("the '612 Patent") is titled "LIGHT EMITTING DIODE PACKAGE WITH ENHANCED HEAT CONDUCTION," and that the '612 Patent indicates that it was filed on October 7, 2013, purports to claim priority to a provisional

application dated October 5, 2012, and issued on November 22, 2016. Except as so admitted, denied. SSC denies that the claims of the '612 patent are entitled to an earlier effective filing date than the filing date of the application that issued as the '612 patent.

94. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 94 of the Complaint, and on that basis, denies.

Technical Description

95. The allegations in Paragraph 95 concerning the scope of the claims in the '612 Patent are conclusions of law, to which no response is required. SSC admits that Exhibit C at the Abstract states “[a] light emitting diode (LED) device and packaging with enhance heat conduction.” SSC admits that Exhibit C at 1:29-32 states “[a] light emitting diode (LED) is a semiconductor device that is configured to receive electrical power to stimulate an output of electromagnetic radiation commonly in the visible range of the spectrum (light).” Samsung admits that Exhibit C at 1:40-52 states “[p]ackaging of electronic devices, such as light emitting diodes (LEDs) and other devices, represent a major cost in the production of electronic parts. In one non-limiting example, LEDs which offer long lifetime, compact form factor, superior energy efficiency, and RohS compliancy are expensive due to the packaging requirements which include sealing, optics, phosphor and efficient heat conduction. There have been numerous efforts to reduce the cost of the electronic device packaging by using silicon based wafer level assembly technologies. However, these approaches still require a carrier chip for the electronic device and in most cases the carrier chip doubles the cost, and in the case of an LED triples the heat resistivity.” SSC admits that Exhibit C at 3:39-46 states “[i]n addition, the carrier substrate greatly increases the thermal resistivity of the device and adversely affects its heat removal characteristics. Hence it is desirable to provide a wafer level package for LEDs which does not require any carrier substrate and uses the LED die only, alternatively, the package provides a direct thermal connection from the LED to the heat sink for efficient removal of the generated heat.” Except as so admitted, denied.

96. SSC admits that Exhibit C at 3:56-60 states “an improved LED in a wafer level processed (WLP) package is disclosed using vias in the silicon to route the electrical connections to the LED backside and a dedicated hole in the silicon with a direct heat conduction route from the LED to the printed circuit board.” SSC denies that the ‘612 patent provides a technical solution to prior art problems by providing a LED package which removes heat and reflects optical energy away from a carrier wafer. Except as so admitted, denied.

Direct Infringement

97. To the extent that Paragraph 97 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 97 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

98. Paragraph 98 consists of legal conclusions to which no response is required, but to the extent a response is required, denied.

99. To the extent that Paragraph 99 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 99 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

100. To the extent that the allegations in Paragraph 100 of the Complaint purport to compare SSC’s products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 100 purport to compare non-SSC’s products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC’s products, and on that basis, denies.

101. To the extent that the allegations in Paragraph 101 of the Complaint purport to compare SSC’s products to claim language that has not been construed by the Court and,

accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 101 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

102. To the extent that the allegations in Paragraph 102 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 102 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

103. To the extent that the allegations in Paragraph 103 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 103 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

104. To the extent that the allegations in Paragraph 104 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 104 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly,

contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

105. To the extent that the allegations in Paragraph 105 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 105 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

106. To the extent that the allegations in Paragraph 106 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 106 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

107. To the extent that the allegations in Paragraph 107 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 107 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

108. To the extent that the allegations in Paragraph 108 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 108 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

110. To the extent that the allegations in Paragraph 109 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 109 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

110. To the extent that the allegations in Paragraph 110 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 110 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

Willful Infringement

111. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

112. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

113. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

114. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

115. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

116. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

117. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

118. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 118 of the Complaint as to SSC and SSC's products. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

119. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 119 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

Indirect, Induced, and Contributory Infringement

120. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 120 of the Complaint as to SSC and SSC's

products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

121. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 121 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

122. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 122 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

123. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 123 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

124. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 124 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

125. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 125 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

COUNT FOUR

INFRINGEMENT OF U.S. PATENT 9,786,822

126. SSC incorporates by reference its responses to all preceding paragraphs as if set forth fully herein.

127. SSC admits that U.S. Patent No. 9,786,822 (“the ’822 Patent”) is titled “LIGHT EMITTING DIODE PACKAGE AND METHOD OF MANUFACTURE,” was filed on December 15, 2014, purports to claim priority to a parent Patent number 8,941,137 filed on March 6, 2012, and issued on October 10, 2017. SSC denies that the claims of the ’822 patent are entitled to an earlier effective filing date than the filing date of the application that issued as the ’822 patent.

128. SSC lacks knowledge or information sufficient to admit or deny the allegations in Paragraph 128 of the Complaint, and on that basis, denies.

Technical Description

129. The allegations in Paragraph 129 concerning the scope of the claims in the ’822 Patent are conclusions of law, to which no response is required. SSC admits that Exhibit C at the Abstract states “[a] light emitting diode (LED) device and packaging for same is disclosed. In some aspects, the LED is manufactured using a vertical configuration including a plurality of layers.” Except as so admitted, denied.

130. SSC admits that Exhibit D at 1:33-38 states “[l]ight emitting diodes (LEDs) compare favorably to other sources of light and are especially useful in certain applications and markets. For example, LED lighting generally provides advantages with respect to energy efficiency, compact, rugged, long-lasting design and form factor, as well as other features.” SSC admits that Exhibit D at 1:46-49 states “conventional LED devices can be relatively costly to manufacture by some metrics when compared to other light sources. One reason for this is the exacting packaging requirements for manufacturing LEDs.” SSC admits that Exhibit D at 1:62-2:2 states “conventional techniques require the use of a carrier substrate to support the LED, which can double the cost of making and packaging the LED device. In addition, the carrier substrate greatly increases the thermal resistivity of the device and adversely affects its heat removal

characteristics. Accordingly, there is a need for LED devices that do not suffer from some or all of the above problems.” Except as so admitted, denied.

131. SSC admits that Exhibit D at 2:9-13 states “[c]ertain layers act to promote mechanical, electrical, thermal, or optical characteristics of the device. The device avoids design problems, including manufacturing complexities, costs and heat dissipation problems found in conventional LED devices.” SSC admits that Exhibit D at 2:19-30 states “a semiconductor LED including doped and intrinsic regions thereof; a conducting carrier layer disposed proximal to a first surface of said semiconductor LED and separated therefrom by a metallic interface; an optically permissive layer proximal to a second surface of said semiconductor LED, said first and second surfaces of said semiconductor LED being on opposing faces thereof; an optically definable material proximal to or within said optically permissive layer that affects an optical characteristic of emitted light passing therethrough; and an optically permissive cover substrate covering at least a portion of the above components.” SSC denies that the ‘822 patent provides a technical solution to prior art problems by providing a LED having a plurality of layers. Except as so admitted, denied.

Direct Infringement

132. To the extent that Paragraph 132 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 132 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

133. Paragraph 133 consists of legal conclusions to which no response is required, but to the extent a response is required, denied.

134. To the extent that Paragraph 134 purports to apply to SSC or SSC’s products, denied. To the extent that Paragraph 134 refers to non-SSC’s products or Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations except as they concern SSC or SSC’s products, and on that basis, denies.

135. To the extent that the allegations in Paragraph 135 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 135 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

136. To the extent that the allegations in Paragraph 136 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 136 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

137. To the extent that the allegations in Paragraph 137 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 137 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

138. To the extent that the allegations in Paragraph 138 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response

is required, denied. To the extent that the allegations in Paragraph 138 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

139. To the extent that the allegations in Paragraph 139 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 139 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

140. To the extent that the allegations in Paragraph 140 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 140 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

141. To the extent that the allegations in Paragraph 141 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 141 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required,

SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

142. To the extent that the allegations in Paragraph 142 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 142 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

143. To the extent that the allegations in Paragraph 143 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 143 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

144. To the extent that the allegations in Paragraph 144 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 144 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

145. To the extent that the allegations in Paragraph 145 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 145 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

146. To the extent that the allegations in Paragraph 146 of the Complaint purport to compare SSC's products to claim language that has not been construed by the Court and, accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, denied. To the extent that the allegations in Paragraph 146 purport to compare non-SSC's products to claim language that has not been construed by the Court, and accordingly, contain legal conclusions, no response is required, but to the extent any such response is required, SSC lacks knowledge or information sufficient to admit or deny the allegations as they concern non-SSC's products, and on that basis, denies.

Willful Infringement

147. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

148. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

149. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

150. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

151. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

152. SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

153. As to SSC, denied. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

154. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 154 of the Complaint as to SSC and SSC's products. As to Samsung, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

155. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of willful infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 155 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

Indirect, Induced, and Contributory Infringement

156. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 156 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

157. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 157 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

158. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response

is required, SSC denies the allegations in Paragraph 158 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

159. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 159 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

160. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 160 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

161. Pursuant to the Court's Order (Dkt. 18) dismissing Plaintiff's claims of indirect infringement under Fed. R. Civ. P. 12(b)(6), no response is required, but to the extent a response is required, SSC denies the allegations in Paragraph 161 of the Complaint as to SSC and SSC's products. As to Samsung or non-SSC's products, SSC lacks knowledge or information sufficient to admit or deny the allegations, and on that basis, denies.

NOTICE

162. Paragraph 162 consists of legal conclusions to which no response is required, but to the extent a response is required, denied.

JURY DEMAND

163. Paragraph 163 consists of legal conclusions to which no response is required, but to the extent a response is required, SSC admits that Paragraph 163 contains a request for a jury trial.

PRAYER FOR RELIEF

164. The prayer for relief consists of legal conclusions to which no response is required, but to the extent a response is required, SSC denies that Plaintiff is entitled to any judgment or relief against SSC or SSC's products, and requests that Plaintiff's prayer be denied in every respect.

AFFIRMATIVE DEFENSES

FIRST AFFIRMATIVE DEFENSE

(Noninfringement)

165. SSC has not and does not directly or indirectly infringe, literally or under the doctrine of equivalents, any of the claims of the Asserted Patents.

SECOND AFFIRMATIVE DEFENSE

(Invalidity and Unenforceability)

166. The claims of the Asserted Patents are invalid and/or unenforceable for, *inter alia*, failing to comply with the requirements of 35 U.S.C. §§ 101, 102, 103, 112 and/or 116.

THIRD AFFIRMATIVE DEFENSE

(No Willful Infringement)

167. SSC has not willfully infringed and is not willfully infringing any of the Accused Patents.

FOURTH AFFIRMATIVE DEFENSE

(Failure to State a Claim)

168. Plaintiff's allegations in the Complaint are conclusory and fail to state a claim upon which relief against SSC can be granted.

FIFTH AFFIRMATIVE DEFENSE

(Prosecution History Estoppel)

169. On information and belief by reason of prior art and the proceedings in the United States Patent and Trademark Office during the prosecution of the application, and all applications to which the Asserted Patents claim priority, that led to the issuance of the Asserted Patents,

including without limitation amendments, representations, concessions, and admissions made by or on behalf of the applicant, and/or because of disclosures or language in the specification of the Asserted Patents, Plaintiff is estopped from asserting that the claims of the Asserted Patents cover and include the devices, products, methods or acts of SSC.

SIXTH AFFIRMATIVE DEFENSE

(Injunctive Relief Unavailable)

170. Plaintiff is not entitled to an injunction because, *inter alia*: (1) Plaintiff has not suffered nor will Plaintiff suffer irreparable harm because of SSC's conduct; (2) any harm to Plaintiff would be outweighed by the harm to SSC if an injunction were entered; (3) Plaintiff has an adequate remedy at law even if it prevailed in this action; and (4) the public interest would not be served by an injunction.

SEVENTH AFFIRMATIVE DEFENSE

(Laches)

171. To the extent that Plaintiff and/or one or more of its predecessors in interest for the Asserted Patents delayed filing suit for an unreasonable and inexcusable length of time from when it knew or reasonably should have known of SSC's allegedly infringing products. This delay has prejudiced and injured SSC.

EIGHTH AFFIRMATIVE DEFENSE

(Failure to Mark or Provide Notice)

172. On information and belief, Plaintiff is limited in its right to seek damages due to a failure to mark products with the Asserted Patents or otherwise provide notice of alleged infringement of the Asserted Patents to SSC.

NINTH AFFIRMATIVE DEFENSE

(Statute of Limitations)

173. Plaintiff's right to seek damages is limited, including without limitation by 35 U.S.C. §§ 286 and 287.

TENTH AFFIRMATIVE DEFENSE

(License/Patent Exhaustion)

174. Plaintiff's claims for relief are barred or limited to the extent that any allegedly infringing products are supplied, directly or indirectly, to SSC by an entity with a license to one or more of the Asserted Patents and/or under the doctrines of exhaustion, first sale, full compensation or release.

ELEVENTH AFFIRMATIVE DEFENSE

(Territoriality)

175. To the extent that Plaintiff's claims are directed to acts occurring outside the United States, those claims for relief are barred or limited by the doctrine of territoriality by 35 U.S.C. § 271 et seq., including but not limited to § 271(a) and (c).

TWELFTH AFFIRMATIVE DEFENSE

(No Attorneys' Fees)

176. Plaintiff is not entitled to recover attorneys' fees associated with this action, including without limitation under 35 U.S.C. § 285, or costs associated with this action, including without limitation under 35 U.S.C. § 288.

THIRTEENTH AFFIRMATIVE DEFENSE

(Standing)

177. To the extent that Plaintiff lacks all substantive rights to bring suit and to exclude others from practicing the claims of one or more of the Asserted Patents, LED Wafer's claims are barred by a lack of standing and the court lacks subject matter jurisdiction.

FOURTEENTH AFFIRMATIVE DEFENSE

(Manufactured for the United States)

178. To the extent that any alleged invention has been used or manufactured by or for the United States, the claims for relief are barred or limited by 28 U.S.C § 1498.

FIFTEENTH AFFIRMATIVE DEFENSE

(No Causation)

179. Plaintiff's right to seek damages against SSC is limited, because Plaintiff's damages, if any, were not caused by SSC.

SIXTEENTH AFFIRMATIVE DEFENSE

(Acts of Others)

180. The claims made in the Complaint are barred, in whole or in part, because SSC is not liable for the acts of others over whom it has no control.

RESERVATION OF ADDITIONAL DEFENSES

Discovery in this action has not yet commenced and SSC continues to investigate the allegations set forth in the Complaint. SSC specifically gives notice that it intends to rely upon such other defenses as may become available by law, or pursuant to statute, or discovery proceedings in this case, and hereby reserves the right to assert such additional defenses.

SSC'S PRAYER FOR RELIEF

WHEREFORE, SSC prays for relief as follows:

- A. A judgment declaring that SSC has not directly or indirectly infringed, literally or under the doctrine of equivalents, any claim of any of the Asserted Patents;
- B. A judgment declaring that the claims of the Asserted Patents are invalid;
- C. A judgment declaring that Plaintiff is not entitled to any damages;
- D. A judgment declaring that Plaintiff is not entitled to injunctive relief;
- E. A judgment dismissing Plaintiff's claims with prejudice in their entirety;
- F. A judgment declaring that this case is exceptional under 35 U.S.C. § 285, and awarding SSC its reasonable costs and other expenses of litigation, including attorneys' fees and expert witness fees; and
- G. Such other relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

SSC respectfully demands a jury on all claims and issues so triable.

Dated: December 6, 2021

/s/Michael B. Eisenberg

Local Counsel

Steven J. Wingard
Texas Bar No. 00788694
Email: swingard@scottdoug.com
Stephen Burbank
Texas Bar No. 24109672
Email: sburbank@scottdoug.com
Scott Douglass & McConnico LLP
303 Colorado Street, Suite 2400
Austin, TX 78701
Telephone: (512) 495-6300
Facsimile: (512) 495-6399

Lead Counsel

Michael B. Eisenberg (admitted *pro hac vice*)
Steptoe & Johnson LLP
1114 Avenue of the Americas
New York, New York 10036
Telephone: (212) 506-3931
Facsimile: (212) 506-3950
Email: meisenberg@steptoe.com

Anna M. Targowska (admitted *pro hac vice*)
Steptoe & Johnson LLP
227 West Monroe Street, Suite 4700
Chicago, IL 60606
Telephone: (312) 577-1269
Email: atargowska@steptoe.com

*Attorneys for Intervenor-Defendant
Seoul Semiconductor Co. Ltd.*

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was served by email via the Western District of Texas ECF System to all counsel of record on this the 6th day of December, 2021.

/s/ Steven J. Wingard
Steven J. Wingard